

WHAT IS CLAIMED IS:

1. An EL display device comprising:

a pixel portion having a plurality of gate wirings, a plurality of source wirings
5 intersecting said plurality of gate wirings, at least one thin film transistor surrounded by said plurality of gate wirings and said plurality of said source wirings, and an EL element electrically connected to said thin film transistor,

wherein said pixel portion comprises a plurality of pixel rows divided along said plurality of gate wirings, and

10 wherein said plurality of pixel rows comprise a first pixel row in which a red light emitting layer is formed, a second pixel row in which a green light emitting layer is formed, and a third pixel row in which a blue light emitting layer is formed.

2. An EL display device comprising:

15 a pixel portion having a plurality of gate wirings, a plurality of source wirings intersecting said plurality of gate wirings, at least one thin film transistor surrounded by said plurality of gate wirings and said plurality of said source wirings, and an EL element electrically connected to said thin film transistor,

20 wherein said pixel portion comprises a plurality of pixel rows divided along said plurality of source wirings, and

wherein said plurality of pixel rows comprise a first pixel row in which a red light emitting layer is formed, a second pixel row in which a green light emitting layer is formed, and a third pixel row in which a blue light emitting layer is formed.

3. An EL display device comprising:

a pixel portion having a plurality of gate wirings, a plurality of source wirings intersecting said plurality of gate wirings, a plurality of banks provided over said plurality of gate wirings, at least one thin film transistor surrounded by said plurality of gate wirings and said plurality of said source wirings, and an EL element electrically connected to said thin film transistor,

wherein said pixel portion comprises a plurality of pixel rows divided along said plurality of banks, and

wherein said plurality of pixel rows comprise a first pixel row in which a red light emitting layer is formed, a second pixel row in which a green light emitting layer is formed, and a third pixel row in which a blue light emitting layer is formed.

4. An EL display device comprising:

a pixel portion having a plurality of gate wirings, a plurality of source wirings intersecting said plurality of gate wirings, a plurality of banks provided over said plurality of source wirings, at least one thin film transistor surrounded by said plurality of gate wirings and said plurality of said source wirings, and an EL element electrically connected to said thin film transistor,

wherein said pixel portion comprises a plurality of pixel rows divided along said plurality of banks, and

wherein said plurality of pixel rows comprise a first pixel row in which a red light emitting layer is formed, a second pixel row in which a green light emitting layer is formed, and a third pixel row in which a blue light emitting layer is formed.

5. An EL display device comprising:

a pixel portion having a plurality of cathodes arranged in a stripe shape, a plurality of anodes arranged in a stripe shape so as to intersect said plurality of cathodes, and a plurality of light emitting layers provided between said plurality of cathodes and said plurality of anodes,

wherein said pixel portion comprises a plurality of pixel rows divided along said plurality of cathodes, and

wherein said plurality of pixel rows comprise a first pixel row in which a red light emitting layer is formed, a second pixel row in which a green light emitting layer is formed, and a third pixel row in which a blue light emitting layer is formed.

6. An EL display device comprising:

a pixel portion having a plurality of cathodes arranged in a stripe shape, a plurality of anodes arranged in a stripe shape so as to intersect said plurality of cathodes, a plurality of banks provided in the gaps of said plurality of cathodes, and a plurality of light emitting layers provided between said plurality of cathodes and said plurality of anodes,

wherein said pixel portion comprises a plurality of pixel rows divided along said plurality of banks, and

wherein said plurality of pixel rows comprise a first pixel row in which a red light emitting layer is formed, a second pixel row in which a green light emitting layer is formed, and a third pixel row in which a blue light emitting layer is formed.

7. An EL display device according to claim 1, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL

materials.

8. An EL display device according to claim 2, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

9. An EL display device according to claim 3, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

10. An EL display device according to claim 4, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

11. An EL display device according to claim 5, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

12. An EL display device according to claim 6, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

13. An EL display device according to claim 1, wherein said EL display device is incorporated into an electronic device selected from the group consisting of a video camera, a

digital camera, a goggle type display, a car navigation system, an audio reproducing device, a personal computer, a game equipment, and a portable information terminal.

14. An EL display device according to claim 2, wherein said EL display device is
5 incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a goggle type display, a car navigation system, an audio reproducing device, a personal computer, a game equipment, and a portable information terminal.

15. An EL display device according to claim 3, wherein said EL display device is
10 incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a goggle type display, a car navigation system, an audio reproducing device, a personal computer, a game equipment, and a portable information terminal.

16. An EL display device according to claim 4, wherein said EL display device is
15 incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a goggle type display, a car navigation system, an audio reproducing device, a personal computer, a game equipment, and a portable information terminal.

17. An EL display device according to claim 5, wherein said EL display device is
20 incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a goggle type display, a car navigation system, an audio reproducing device, a personal computer, a game equipment, and a portable information terminal.

18. An EL display device according to claim 6, wherein said EL display device is

incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a goggle type display, a car navigation system, an audio reproducing device, a personal computer, a game equipment, and a portable information terminal.

5 19. A method for manufacturing an EL display device having a pixel portion comprising a plurality of gate wirings, a plurality of source wirings intersecting said plurality of gate wirings, at least one thin film transistor surrounded by said plurality of gate wirings and said plurality of said source wirings, and an EL element electrically connected to said thin film transistor, said method comprising the steps of:

forming a plurality of pixel rows by dividing said pixel portion along said plurality of gate wirings; and

forming a light emitting layer in each pixel row,

wherein said light emitting layer is selected from the group consisting of a red light emitting layer, a green light emitting layer and a blue light emitting layer.

20. A method for manufacturing an EL display device having a pixel portion comprising a plurality of gate wirings, a plurality of source wirings intersecting said plurality of gate wirings, at least one thin film transistor surrounded by said plurality of gate wirings and said plurality of said source wirings, and an EL element electrically connected to said thin film transistor, said method comprising the steps of:

forming a plurality of pixel rows by dividing said pixel portion along said plurality of source wirings; and

forming a light emitting layer in each pixel row,

wherein said light emitting layer is selected from the group consisting of a red light

emitting layer, a green light emitting layer and a blue light emitting layer.

21. A method for manufacturing an EL display device having a pixel portion comprising a plurality of gate wirings, a plurality of source wirings intersecting said plurality of gate wirings, a plurality of banks provided over said plurality of gate wirings, at least one thin film transistor surrounded by said plurality of gate wirings and said plurality of said source wirings, and an EL element electrically connected to said thin film transistor, said method comprising the steps of:

forming a plurality of pixel rows by dividing said pixel portion along said plurality of banks; and

forming a light emitting layer in each pixel row,

wherein said light emitting layer is selected from the group consisting of a red light emitting layer, a green light emitting layer and a blue light emitting layer.

22. A method for manufacturing an EL display device having a pixel portion comprising a plurality of gate wirings, a plurality of source wirings intersecting said plurality of gate wirings, a plurality of banks provided over said plurality of source wirings, at least one thin film transistor surrounded by said plurality of gate wirings and said plurality of said source wirings, and an EL element electrically connected to said thin film transistor, said method comprising the steps of:

forming a plurality of pixel rows by dividing said pixel portion along said plurality of banks; and

forming a light emitting layer in each pixel row,

wherein said light emitting layer is selected from the group consisting of a red light

emitting layer, a green light emitting layer and a blue light emitting layer.

23. A method for manufacturing an EL display device having a pixel portion comprising a plurality of cathodes arranged in a stripe shape, a plurality of anodes arranged in a stripe shape so as to intersect said plurality of cathodes, and a plurality of light emitting layers provided between said plurality of cathodes and said plurality of anodes, said method comprising the steps of:

forming a plurality of pixel rows by dividing said pixel portion along said plurality of cathodes; and

forming a light emitting layer in each pixel row,

wherein said light emitting layer is selected from the group consisting of a red light emitting layer, a green light emitting layer and a blue light emitting layer.

24. A method for manufacturing an EL display device having a pixel portion comprising a plurality of cathodes arranged in a stripe shape, a plurality of anodes arranged in a stripe shape so as to intersect said plurality of cathodes, a plurality of bank provided in the gaps of plurality of cathodes, and a plurality of light emitting layers provided between said plurality of cathodes and said plurality of anodes, said method comprising the steps of:

forming a plurality of pixel rows by dividing said pixel portion along said plurality of banks; and

forming a light emitting layer in each pixel row,

wherein said light emitting layer is selected from the group consisting of a red light emitting layer, a green light emitting layer and a blue light emitting layer.

25. A method according to claim 19, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

5 26. A method according to claim 20, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

10 27. A method according to claim 21, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

15 28. A method according to claim 22, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

29. A method according to claim 23, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

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30. A method according to claim 24, wherein said red light emitting layer, said green light emitting layer and said blue light emitting layer comprise high molecular organic EL materials.

31. A method according to claim 19, wherein said method further comprises discharging a red light emitting layer application liquid that is to become said red light emitting layer, a green light emitting layer application liquid that is to become said green light emitting layer and a blue light emitting layer application liquid that is to become said blue light emitting layer from separate nozzles at the same time, and performing heat treatment to the discharged said red light emitting layer application liquid, said green light emitting layer application liquid and said blue light emitting layer application liquid.

32. A method according to claim 20, wherein said method further comprises discharging a red light emitting layer application liquid that is to become said red light emitting layer, a green light emitting layer application liquid that is to become said green light emitting layer and a blue light emitting layer application liquid that is to become said blue light emitting layer from separate nozzles at the same time, and performing heat treatment to the discharged said red light emitting layer application liquid, said green light emitting layer application liquid and said blue light emitting layer application liquid.

33. A method according to claim 21, wherein said method further comprises discharging a red light emitting layer application liquid that is to become said red light emitting layer, a green light emitting layer application liquid that is to become said green light emitting layer and a blue light emitting layer application liquid that is to become said blue light emitting layer from separate nozzles at the same time, and performing heat treatment to the discharged said red light emitting layer application liquid, said green light emitting layer application liquid and said blue light emitting layer application liquid.

34. A method according to claim 22, wherein said method further comprises discharging a red light emitting layer application liquid that is to become said red light emitting layer, a green light emitting layer application liquid that is to become said green light emitting layer and a blue light emitting layer application liquid that is to become said blue light emitting layer from separate nozzles at the same time, and performing heat treatment to the discharged said red light emitting layer application liquid, said green light emitting layer application liquid and said blue light emitting layer application liquid.

35. A method according to claim 23, wherein said method further comprises discharging a red light emitting layer application liquid that is to become said red light emitting layer, a green light emitting layer application liquid that is to become said green light emitting layer and a blue light emitting layer application liquid that is to become said blue light emitting layer from separate nozzles at the same time, and performing heat treatment to the discharged said red light emitting layer application liquid, said green light emitting layer application liquid and said blue light emitting layer application liquid.

36. A method according to claim 24, wherein said method further comprises discharging a red light emitting layer application liquid that is to become said red light emitting layer, a green light emitting layer application liquid that is to become said green light emitting layer and a blue light emitting layer application liquid that is to become said blue light emitting layer from separate nozzles at the same time, and performing heat treatment to the discharged said red light emitting layer application liquid, said green light emitting layer application liquid and said blue light emitting layer application liquid.

37. A method according to claim 19, wherein at least one of said red light emitting layer, said green light emitting layer and said blue light emitting layer is formed by performing heat treatment to an application liquid discharged from a nozzle, and the remaining light emitting layers are formed by a method selected from the group consisting of a spin coating method, a printing method and an evaporation method.

38. A method according to claim 20, wherein at least one of said red light emitting layer, said green light emitting layer and said blue light emitting layer is formed by performing heat treatment to an application liquid discharged from a nozzle, and the remaining light emitting layers are formed by a method selected from the group consisting of a spin coating method, a printing method and an evaporation method.

39. A method according to claim 21, wherein at least one of said red light emitting layer, said green light emitting layer and said blue light emitting layer is formed by performing heat treatment to an application liquid discharged from a nozzle, and the remaining light emitting layers are formed by a method selected from the group consisting of a spin coating method, a printing method and an evaporation method.

40. A method according to claim 22, wherein at least one of said red light emitting layer, said green light emitting layer and said blue light emitting layer is formed by performing heat treatment to an application liquid discharged from a nozzle, and the remaining light emitting layers are formed by a method selected from the group consisting of a spin coating method, a printing method and an evaporation method.

41. A method according to claim 23, wherein at least one of said red light emitting layer, said green light emitting layer and said blue light emitting layer is formed by performing heat treatment to an application liquid discharged from a nozzle, and the remaining light emitting layers are formed by a method selected from the group consisting of a spin coating method, a printing method and an evaporation method.

42. A method according to claim 24, wherein at least one of said red light emitting layer, said green light emitting layer and said blue light emitting layer is formed by performing heat treatment to an application liquid discharged from a nozzle, and the remaining light emitting layers are formed by a method selected from the group consisting of a spin coating method, a printing method and an evaporation method.

43. A method for forming an EL display device comprising the steps of:

forming a pixel portion having at least two adjacent pixels over a substrate; and

providing a light emitting layer application in said two adjacent pixels continuously from a dispenser during moving said dispenser relatively to said substrate,

wherein said light emitting layer application is selected from the group consisting of a red light emitting layer application, a green light emitting layer application and a blue light emitting layer application.

44. A method according to claim 43, wherein said method further comprises performing heat treatment to form a light emitting layer.

45. A method for forming an EL display device comprising the steps of:

forming a pixel portion having at least one pixel row over a substrate;

providing a light emitting layer application in said one pixel row continuously from a dispenser during moving said dispenser relatively to said substrate,

wherein said light emitting layer application is selected from the group consisting of
5 a red light emitting layer application, a green light emitting layer application and a blue light emitting layer application.

46. A method according to claim 45, wherein said method further comprises performing heat treatment to form a light emitting layer.

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